

AMENDMENT UNDER 37 C.F.R. § 1.116  
Application Serial No. 09/880,047  
Attorney Docket No. Q64973

**REMARKS**

Upon entry of the present Amendment, claims 1-24 are all the claims pending in the application. Claims 1-6, 8-10, 12, 17, and 19-21 are amended, and new claims 22-24 are added. No new matter is presented.

Applicant again notes that the Examiner has not indicated acceptance of the Figures 1-4, which were submitted on August 22, 2001. Rather, the Examiner has only indicated that the replacement drawings submitted on March 16, 2005, which included Replacement Figures 5, 6A, 6B, 6C, and 7, have been accepted. Accordingly, the Examiner is kindly requested to indicate acceptance of the previously submitted Figures 1-4 in the next action.

To summarize the Office Action, claims 1-5, 7-13 and 15-21 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Sakamoto et al. (U.S. Patent No. 6,633,571, hereinafter "Sakamoto"), and claims 6 and 14 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sakamoto in view of Bonaventure (U.S. Patent No. 6,680,907). The outstanding grounds of rejection are traversed and addressed below.

**Claim Rejections - 35 U.S.C. § 102**

As noted above, claims 1-5, 7-13 and 15-21 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Sakamoto. Applicant respectfully traverses and submits that Sakamoto fails to teach or suggest all the limitations of these claims, as evidenced by the following.

Independent Claim 1

With respect to independent claim 1, Applicant submits that Sakamoto fails to teach or suggest all the features of the network system defined by claim 1. For instance, claim 1 defines a novel network system comprising, *inter alia*, a plurality of IP networks that each utilizes a different network layer protocol, the plurality of IP networks including at least a first IP network, a second IP network, and a third IP network; and a packet exchange, provided between the plurality of IP networks. As recited by claim 1, the packet exchange receives an IP packet in a first network layer protocol format to be sent from the first IP network, determines a destination network among the second IP network and the third IP network based upon a destination address specified by the IP packet in the first network layer protocol format, and converts the IP packet in the first network layer protocol format, wherein the IP packet in the first network layer protocol format is converted to a second network layer protocol format if the second IP network is the destination address that is determined and the IP packet of the first network layer protocol format is converted to the third network layer protocol format if the third IP network is the destination address that is determined.

Sakamoto fails to teach or suggest *at least* the features of the packet exchange, as claimed. In this regard, Applicant notes that Sakamoto merely teaches an interwork router which connects a first network type (i.e., ISP1) to a second network type (i.e., ISP2). See Sakamoto at col. 5, lines 8-40. As taught by Sakamoto, ISP1 composes a virtual private network (VPN) by encapsulating IP packets and ISP2 composes a VPN by encapsulating packets in an Multi Protocol Layer Switching (MPLS) network, and the interwork router simply receives packets

from the ISP1 that are encapsulated as IP packets, removes the capsule header used in ISP1 and then creates a new capsule header for the packet that is then sent to a switch for transmitting to ISP2. *See* Sakamoto at col. 5, lines 41-56 and col. 7, lines 3-27. Since ISP2 uses MPLS, the interwork router creates an ATM header for the packet for transfer on the ISP2 network. *See* Sakamoto at col. 5, lines 56-60. According to Sakamoto, since naked IP packets, from which the capsule header is removed, are never supplied to the switch, no other invalid users can insert packets in the VPN from the switch, thereby increasing network security. *See* Sakamoto at col. 7, lines 18-26.

However, Sakamoto does not suggest the claimed plurality of IP networks, including at least a first IP network, a second IP network, and a third IP network that *each* utilize a different network layer protocol. Rather, as discussed above, Sakamoto merely teaches removal of a capsule header of an IP packet from a first network (IP encapsulation) and replacing the capsule header prior to switching for transmission to a second network (MPLS). Consequently, Sakamoto fails to teach or suggest the packet exchange, as claimed, which receives an IP packet in a first network layer protocol format and determines a destination address among second and third IP networks, which each utilizes different network layer protocol formats from the first network layer protocol format. Further, as Sakamoto merely replaces a IP capsule header with an ATM header for the MPLS network, Sakamoto does not suggest a packet exchange which converts the IP packet as claimed. For instance, Sakamoto does not teach an IP packet in a first network layer protocol format is converted to a second network layer protocol format if the second IP network is the destination address that is determined and the IP packet of the first

network layer protocol format is converted to a third network layer protocol format if the third IP network is the destination address that is determined.

As evidenced by the foregoing, Sakamoto fails to teach or suggest all the limitations of claim 1. Accordingly, reconsideration and withdrawal of the rejection is requested. Further, claims 2-7 and 21-22 should be allowed at least by virtue of depending from claim 1.

Independent Claim 8

Independent claim 8 defines a network system comprising, *inter alia*, a user terminal connected to a first network to be utilized by a user; a plurality of networks of service providers or online entrepreneurs which provide various services to the user including at least a second network and a third network, wherein the first network, the second network, the third network each utilize a different network layer protocol; an IP network which transmits packet data between the user terminal and the networks through a router according to an IP address; and a packet exchange, connected to the IP network, the packet exchange receiving an IP packet in a first network layer protocol format from the user terminal via the first network, determining a destination network among the second network and the third network based upon a destination address specified by the IP packet in the first network layer protocol format, and converting the IP packet in the first network layer protocol format. As defined by claim 8, the IP packet in the first network layer protocol format is converted to a second network layer protocol format if the second network is the destination address that is determined and the IP packet in the first

network layer protocol format is converted to a third network layer protocol format if the third network is the destination address that is determined.

Sakamoto, as discussed above, merely teaches removal of a capsule header of an IP packet from a first network (IP encapsulation) and replacing the capsule header prior to switching for transmission to a second network (MPLS). Thus, Sakamoto does not suggest the first, second and third network, which, as claimed, each utilize a different network layer protocol. Moreover, Sakamoto does not suggest the claimed packet exchange, which converts the IP packet in the first network layer protocol format to a second network layer protocol format if the second network is the destination address that is determined and converts the IP packet in the first network layer protocol format to a third network layer protocol format if the third network is the destination address that is determined.

Thus, Sakamoto fails to teach or suggest all the features of claim 8. Accordingly, reconsideration and withdrawal of the rejection of claim 8 is requested. Further, claims 9-11 are allowable at least by virtue of depending from claim 8.

#### Independent Claim 12

Independent claim 12 defines a network system comprising, *inter alia*, a user terminal which is installed on a user side and is connected to an access gateway by a first network; a plurality of networks of service providers or online entrepreneurs, including at least a second network and a third network, wherein the first network, the second network and the third network each utilize a different network layer protocol; and a packet exchange, connected to the

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IP network, the packet exchange receiving an IP packet in a first network layer protocol format from the user terminal via the first network, determining a destination network among the second network and the third network based upon a destination address specified by the IP packet in the first network layer protocol format, and converting the IP packet in the first network layer protocol format. As claimed, the packet exchange converts the IP packet in the first network layer protocol format to a second network layer protocol format if the second network is the destination address that is determined and the IP packet in the first network layer protocol format is converted to a third network layer protocol format if the third network is the destination address that is determined.

Thus, at least for the reasons discussed above with respect to claim 8, Sakamoto fails to teach or suggest *at least* the features of the first network, the second network and the third network, which each utilize a different network layer protocol, and the packet exchange which converts the IP packet in the first network layer protocol format to the second network layer protocol format if the second network is the destination address that is determined and converts the IP packet in the first network layer protocol format to the third network layer protocol format if the third network is the destination address that is determined.

Accordingly, reconsideration and withdrawal of the rejection of claim 12 is requested. Further, claims 13-18 and 23 should be allowed at least by virtue of depending from claim 12.

Independent claim 19

Independent claim 19 defines a packet data transmission method comprising, *inter alia*, determining a destination network among the second network and the third network based upon a destination address specified by an IP packet in a first network layer protocol format, and converting the IP packet in the first network layer protocol format, wherein the IP packet in the first network layer protocol format is converted to a second network layer protocol format if the second network is the destination address that is determined and the IP packet in the first network layer protocol format is converted to a third network layer protocol format if the third network is the destination address that is determined. Claim 19 further recites that the first network layer protocol utilized by the first network, the second network layer protocol utilized second network, and the third network layer protocol utilized by the third network are different network layer protocols.

Thus, at least for the reasons discussed above with respect to claim 8, Sakamoto fails to suggest the first, second, and third networks which utilize different network layer protocols and the conversion of the IP packet to the second network layer protocol format and the third network layer protocol format, as claimed. Accordingly, reconsideration and withdrawal of the rejection of claim 19 is requested. Further, claims 20 and 24 should be allowed at least by virtue of depending from claim 19.

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**Claim Rejections - 35 U.S.C. § 103**

Claims 6 and 14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sakamoto in view of Bonaventure. Without commenting substantively, Applicant submits that claims 6 and 14 are allowable at least by virtue of depending from claims 1 and 12, respectively.

**New claims**

In order to provide additional claims coverage merited by the scope of the invention, claims 22-24 are added. Applicant submits that claims 22-24 are allowable at least by virtue of depending from claims 1, 12, and 19, respectively.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.



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Respectfully submitted,



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